

Notice of Allowability	Application No.	Applicant(s)	
	09/325,110	ANSELMO, CARL S.	
	Examiner	Art Unit	
	Charles Chow	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/19/2007.
2. ☒ The allowed claim(s) is/are 1-8,11,12,15-18 and 21-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Detailed Action

1. This office action is for Appeal Brief received on 4/19/2007.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance:

Claims 1-8, 11-12, 15-18, 21-31 are allowable over the prior art of record. The prior arts fail to teach the allowable features, singly, particularly, or in combination or rendering obviousness, with earlier effective filing date of 6/3/1999.

The cited prior arts fail to teach the features in below, together with other associated features of the reconfiguring of a satellite, in independent **claim 1**, for

a routing table storing tuning information therein;

a controller located on said satellite coupled to said communication control circuit, said controller controlling a frequency reconfiguration of said communications control circuit from a first frequency range to a second frequency range through said programmable frequency synthesizer in response to said tuning information.

The cited prior arts fail to teach the features in below together with other associated features of the reconfiguring of a satellite, in independent **claim 15**, for

a routing table storing tuning information therein;

said on-board computer controlling a reconfiguration of said communication control circuit from a first frequency range to a second frequency range through said programmable frequency synthesizer in response to said tuning information.

The cited prior arts fail to teach the features in below together with other associated features of the reconfiguring of a satellite, in independent **claims 18, 28**, for

reconfiguring the frequency configuration of the payload of the reconfigurable satellite in response to the tuning information in a routing table by changing an up converter frequency

and down converter frequency from a first frequency range to a second frequency range using a programmable frequency synthesizer in response to said tuning information.

The dependent claims are also allowable due to their dependency upon the allowable independent claims above and the having additional claimed features.

The closest prior art, **Floury et al. [Us 5,963,845]**, teaches the command from ground station to the satellite for generating plurality of separate frequencies via the frequency synthesizer, for the reconfigurable satellite [col. 9, lines 16-38], but fails to teach the a routing table storing tuning information; the first frequency range to a second frequency range through said programmable frequency synthesizer in response to said tuning information.

Hammill et al. [US 6,173,178 B1] teaches the reconfiguration of the satellite for various different frequencies, different beam bandwidth, beam sizes, via information transmitted from ground station [col. 4, lines 13-25],

Siwiak [US 5,640,166] teaches a table 1 storing Doppler compensation frequencies, for tuning synthesizer 222 [col. 2, line 41-col. 3, line 42, Fig. 2]; the controller 216 controlling the frequency reconfiguration for the transmit/receive communication circuit 228, by correcting the synthesizer frequency 222 using the Doppler frequency shift values, to program synthesizer 222, [col. 2, line 41-col. 3, line 42, Fig. 2], but fails to teach the above allowable features.

Other prior arts in below are also considered, but they fail to teach the above allowable features.

Brown [US 6,157,621] teaches the time division multiple access switch for the communication control circuit [col. 61, lines 24-31], the utilization of the on-board computer,

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the adaptive routing processor for selecting the best route pathway according to routing table [col. 17, line 8-42; col. 43, line 46 to col. 44, line 9].

Galvin [US 6,182,927 B1] teaches the satellites for LEO, MEO, GSO [col. 6, lines 34-54, the low earth orbit satellites 50, GEO 52, the MEOs in Fig 6] for improving the satellite navigation accuracy [col. 2, line 47].

Wolcott et al. [US 6,317,583 B1] teaches the synthesizers [Fig. 5, col. 5, lines 1-29; Fig. 6], the receive arrays 160-162, receiver beam forming network 170, the transmit beam forming network BNF 214, the transmit array 1-85, for the reliable beam handover for the mobile terminal ground tracking [col. 6, line 48 to col. 7, line 3].

Other prior arts are also considered. They are: **Pizzicaroli et al. [US 5,813,634]**, **Green et al. [US 5,073,930]**, **Gicca [US 3,710,255]**, **Houston et al. [US 6,272,317 B1]**, **Noreen et al. [US 5,455,823]**, **Wiswell et al. [US 6,205,319 B1]**,

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles C. Chow whose telephone number is (571) 272-7889. The examiner can normally be reached on 8:00am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status

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information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Chow C.C.

June 29, 2007.


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